Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

DRAFT
Conditional Major, Construction / Operating
Permit: F-07-007
Trane
Lexington, KY 40511
April 27, 2007
Frough Sherwani, Reviewer

SOURCE ID:	21-067-00009
SOURCE A.I. #:	1100
ACTIVITY ID:	APE20060001

SOURCE DESCRIPTION:

Trane, a Division of American Standard Inc., operates a facility in Lexington, Fayette County, Kentucky. The facility manufactures commercial air conditioning units under SIC 3585. The facility operations include sheet metal forming, coating and assembly of the units. Trane is currently operating under permit no. F-97-012 (Revision 1), which expired on August 29, 2002.

On February 28, 2002 the source applied to the Division for the renewal of their conditional major permit F-97-012(Revision 1).

On March 19, 2003 the source applied to the Division for the correction to the SCC code for the paint booths in form DEP 7007 N submitted with the permit application.

On December 22, 2003 the source applied to the Division for the modification in insignificant activity.

On June 2, 2005 the source applied to the Division for reduction in reporting requirement as source is using water based coating with no HAPS.

On December 15, 2006 the source applied to the Division for the source wide application as the application submitted on February 28, 2002 is old. The permit F-07-007 is based on this new application which consists all the emission points at the source.

Trane continues to collect usages on the coatings and cleaners for the facility on a monthly basis by product and will use this information to log the 12-month rolling emissions totals for VOCs. Currently the 12-month rolling total has been well below the limits specified above.

There are a number of insignificant or trivial activities that are performed at Trane that are summarized in form 7007 DD of the application and section C of the permit F-07-007.

ACTIVITIES ADDED AND DELETED:

The facility has removed the heat exchanger coil making process, which included Boiler #4 from the original permit. The facility has also replaced a roof top unit that was specified at 160,000 BTU/hr with a unit that is rated at 120,000 BTU/hr.

In addition, the facility intends to install a new foam system in the spring of 2007. Due to the low emissions from this system as demonstrated in Appendix C of the application, the system will be considered an insignificant activity and is listed in Section C of the permit.

COATING OPERATIONS:

Trane currently operates two painting booths, Penthouse Climate Changer Paint Booth #5 and Penthouse Climate Changer Paint Booth #6. Currently the two paint booths use one primary coating.

The facility has replaced the previous coating with a water based coating that has lowered VOCs and has no HAPs. A second coating is brush applied, by hand, outside the paint booths area. Minimal amounts of this coating are used to paint the headers. Trane also no longer uses a solvent based cleaner for the paint guns. Water buckets are now used to clean the tips. Isopropyl alcohol wipes are used to clean the booths.

COMBUSTION UNITS:

The facility currently operates three small industrial boilers (<100 million BTU/hr) that range in size from 12.54 MMBTU/hr to 31.36 MMBTU/hr. All three boilers burn natural gas and have the capability of burning fuel oil as a back up.

COMMENTS:

Type of control and efficiency:

There is no control for the VOC in the plant. The Emission Point # 1 (Penthouse Climate Changer Paint Booth # 5) and Emission Point # 2 (Penthouse Climate Changer Paint Booth # 6) have a filter system to control the particulate matter emissions. The control efficiency of the filters estimated to be 90%. The transfer efficiency of the spray system is estimated to be 70%

Emission factors and their source:

The pollutants emission factors for the combustion units are from AP-42. The pollutants emission factors for the two paint booths are derived from mass balances and engineering estimates.

APPLICABLE REGULATIONS:

1. **401 KAR 59:010**, New process operations, applies to the particulate matter emissions from units constructed on or after July 2, 1975.
2. **401 KAR 52:030**, Federally-enforceable permits for nonmajor sources.
3. **401 KAR 59:015**, New indirect heat exchangers, applies to the particulate emissions and sulfur dioxide emissions of indirect heat exchangers with a capacity of greater than one million Btu per hour that were commenced on or after April 9, 1972 (for indirect heat exchangers with a capacity of 250 million Btu per hour heat input or less).
4. **401 KAR 60:005,** incorporating by reference 40 CFR 60 Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, applicable to an emission unit with a design maximum heat input capacity of 100 MMBtu/hr or less and greater than or equal to 10 MMBtu/hr and constructed after June 9, 1989.

EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

1. The source has accepted a facility-wide cap on annual VOC emissions of no more than 50.0 tons per rolling 12-month period. Compliance with this allowable will be demonstrated by record keeping and emissions estimating methodology specified in the terms and conditions of the permit.

2. The source has accepted a facility-wide cap on annual SO_2 (Sulfur Dioxide) emissions of no more than 25.0 tons per rolling 12-month period. Compliance with this allowable will be demonstrated by record keeping and emissions estimating methodology specified in the terms and conditions of the permit.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.